

AMENDMENT
U.S. Appln. No. 10/661,476

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method of fabricating an aluminum nitride (AlN) substrate, comprising:

~~wherein said substrate is obtained by spraying a powder onto a support at a high temperature and at a high speed, said powder including comprising AlN grains covered with a layer of an oxide precursor chosen from oxide precursors yielding an oxide forming a liquid phase around said AlN grains during said spraying,~~

wherein said substrate obtained by spraying said powder onto said support has a thickness of from 0.1 mm to 0.5 mm.

2. (original): The fabrication method claimed in claim 1, wherein said powder is sprayed by means of a plasma torch.

3. (original): The fabrication method claimed in claim 1, wherein said powder is sprayed by means of a flow of air associated with an oxyacetylene torch.

4. (currently amended): The fabrication method claimed in claim 1 ~~of producing an aluminum nitride (AlN) substrate, which includes said following successive steps comprising:~~

~~[[-]]] dissolving an said oxide precursor in said form of an organometallic substance in an organic solvent to form a solution, wherein said oxide precursor is an organometallic substance;~~

~~[[-]]] dispersing fine pure AlN powder in said solution previously obtained with vigorous agitation[[,]]] to form a suspension;~~

~~[[-]]] atomizing said suspension thus obtained in an inert atmosphere to obtain said granulated powder[[,]]]; and~~

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[-] spraying said powder onto said support.

5. (currently amended): The fabrication method claimed in claim 1 of producing an aluminum nitride (AlN) substrate, wherein said oxide is a rare earth oxide.

6. (currently amended): The fabrication method claimed in claim 4 of producing an aluminum nitride (AlN) substrate, wherein said oxide precursor is an yttrium oxide precursor, and said AlN powder obtained after atomization ~~includes said~~ comprises an equivalent of 2% to 3% by weight of yttrium oxide.

7. (currently amended): The fabrication method claimed in claim 6 of producing an aluminum nitride (AlN) substrate, wherein said yttrium oxide precursor is yttrium isopropionate dissolved in propanol.

8. (currently amended): The fabrication method claimed in claim 1 of producing an aluminum nitride (AlN) substrate, wherein said substrate is obtained by a plurality of passes over said support as a function of said required thickness.

9. (currently amended): The fabrication method claimed in claim 1 of producing an aluminum nitride (AlN) substrate, wherein said support is a metal support and is cooled by jets of compressed air during said step of spraying AlN said powder.

10. (currently amended): The fabrication method claimed in claim 1 of producing an aluminum nitride (AlN) substrate, wherein said substrate obtained by spraying AlN said powder onto said support is annealed at a low temperature.

11. (new): The fabrication method claimed in claim 1, wherein said substrate obtained by spraying said powder onto said support is an electric bus.

12. (new): The fabrication method claimed in claim 4, wherein said AlN powder to be dispersed in said solution with vigorous agitation has a grain diameter on the order of from 2 μm to 3 μm .

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13. (new): The fabrication method claimed in claim 4, wherein said powder obtained by atomizing said suspension in an inert atmosphere comprises hollow spheres having a diameter of from 40 μm to 150 μm .

14. (new): The fabrication method claimed in claim 13, further comprising screening said powder having a diameter of from 40 μm to 150 μm to obtain a powder consisting of hollow spheres having a diameter of from 50 μm to 100 μm .